



# NOAA's Update: Aquatic Invasive Species



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ISAC Meeting, USDA, Beltsville, MD  
28-30 October 2015*



# NOAA Highlights and Activities

- HACCP updates
- NOAA AIS Team Workshop
- International updates
- NOAA Inter-Agency AIS Activities
- NOAA Regional Highlights
- NOAA Restoration Center
- NOAA Budget Crosscut



# NOAA's Ongoing AIS Actions

## Hazard Analysis & Critical Control Point (HACCP) Planning to Prevent the Spread of Invasive Species:

- HACCP is international standard for reducing or eliminating the spread of unwanted species during natural resource management (NRM) activities
- Team from NOAA and USFWS have revised manual, forms and teaching materials to better align with NRM work
- Team also developed a "Train the Trainer" course
- New website under development: hosted by the USFWS National Conservation Training Center (Live – December 1, 2015)

- Recent courses:
  - Santa Cruz: April 2015
- Future courses:
  - Silver Spring, MD (Winter 2015)





# 2015 NOAA AIS Workshop



## 2015 NOAA AQUATIC INVASIVE SPECIES WORKSHOP REPORT

March 31 – April 1, 2015

NOAA Southwest Fisheries Science Center, Santa Cruz, CA 95060



**NOAA** NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
UNITED STATES DEPARTMENT OF COMMERCE

### Workshop Recommendations:

- Promote the need for NOAA Regional AIS Teams.
- Compile lists for potential funding sources, staffing opportunities, AIS experts, and environmental economists and social scientists.
- Finalize the draft “NOAA” invasive species-conscious policy.
- Identify AIS training needs and capabilities within NOAA.
- Encourage integrating AIS prevention strategies into broader programs.
- Enhance communications about AIS thru out NOAA.





# International Updates

- Ballast Water Convention: IMO adopted in 2004 & will enter into force 12 months after ratification by 30 States (current 44), representing 35 per cent of world merchant shipping tonnage (current 32.6%)
- Arctic Council: *Arctic Climate Resilience Agenda*: U.S. chairmanship led an initiative to improve practices and policies to prevent the introduction of invasive species in marine, coastal, freshwater, and terrestrial ecosystems, using methods such as HACCP.



# NOAA Inter-Agency AIS Activities

## ANSTF:

- Finalizing the draft ANSTF Report to Congress
- Developing a tracking system to record progress on ANSTF Strategic Plan
- Appointed NOAA representatives on all Regional Panels.
- Hosting next meeting; November 4 -5, 2015; Silver Spring, MD.

## NISC:

- Maintained the NOAA Cross-Cut Budget for AIS.
- Participating in the revision of the NISC Management Plan.
- Participating in the formulation of the EDRR Framework.

## GAO assessment of federal activities wrt AIS:

- Completed questionnaire and participated in meetings.
- Provided comment on Statement of Facts and Draft Report.
- Their report is in final stages of review; expected November 2015.



# NOAA Regional Highlights

## NORTHEAST / MID-ATLANTIC

- Coordinates the Chesapeake Bay Invasive Catfish Taskforce
- Detected *Didemnum vexillum* and *Botrylloides violaceus* (colonial tunicate) in coastal waters off Delmarva

## WEST

- Removal of invasive algae from Catalina Island; Preliminary results indicate that recolonization of the removal sites using a super sucker device is 28% lower than hand removals.
- Data collection on non-native fouling communities throughout Southern California highlights the need to consider the effects of non-native species on overwater structures during the permitting process.
- Continue to administer a Caulerpa surveyor certification exam to ensure biological consultants are capable of identifying Caulerpa in the field during pre-construction surveys
- Investigation of introduced recreational game fishes in Pacific NW ecosystems; includes 1) analysis of impacts to juvenile salmon and 2) review of fish stocking patterns to determine if and how states are shifting stocking practices.



# NOAA Regional Highlights

## GULF / SOUTH ATLANTIC

- More than 30 studies have been published to better understand and control the lionfish (e.g., thermal tolerance, reproduction, distribution, risk of ciguatera).
- Ongoing research to better understand the impacts from Asian tiger shrimp.

## Great Lakes Environmental Research Lab (GLERL)

- Investigating links between quagga/zebra mussels and harmful algal blooms.
- Member of the Invasive Mussel Collaborative.
- Continued work on the GLANSIS database and factsheets

## HAWAII / PACIFIC ISLANDS

- AIS Monitoring and vessel inspection on Papahānaumokuākea Marine National Monument
- Invasive algae removal on Hawaiian reefs.
- Baseline monitoring Saipan, Tinian, and Rota to prepare for increased ship traffic resulting from military buildup in Guam.

## ALASKA

- Representation to the Coastal Committee of the Western Regional Panel, supporting a Regional Biofouling Management Plan, identifying management and research needs to prevent marine invasions in the arctic.





# NOAA Restoration Center

## RC Funds Spent on Invasive Species Efforts:

### 2010\*

- \$4, 061 K

### 2011\*

- \$ 1, 225 K

### 2012\*

- \$3, 126 K

### 2013

- \$95 K

### 2014

- \$1,315 K

### 2015

- \$1,540 K (+ TBD)\*

\* Includes ARRA and GLRI funding

## **Damage Assessment, Remediation, and Restoration Program**

We restore nature resources as hazardous waste sites and after oil spills and other physical impacts

**Great Lakes Restoration Initiative** We restore habitat in the Great Lakes to help delist "Areas of Concern."

**Marine Debris Program** We execute millions of dollars in marine debris removal for the program to help improve existing habitat quality.

**Coral Reef Conservation Program** By preventing runoff, we minimize pollution that damages these biologically diverse ecosystems and productive fish nurseries.

**Estuary Restoration Act** We represent NOAA in the interagency process to establish restoration best practices for the federal government.

**Regional Initiatives** We provide support and guidance on restoration to regional bodies such as the Gulf of Maine Council.

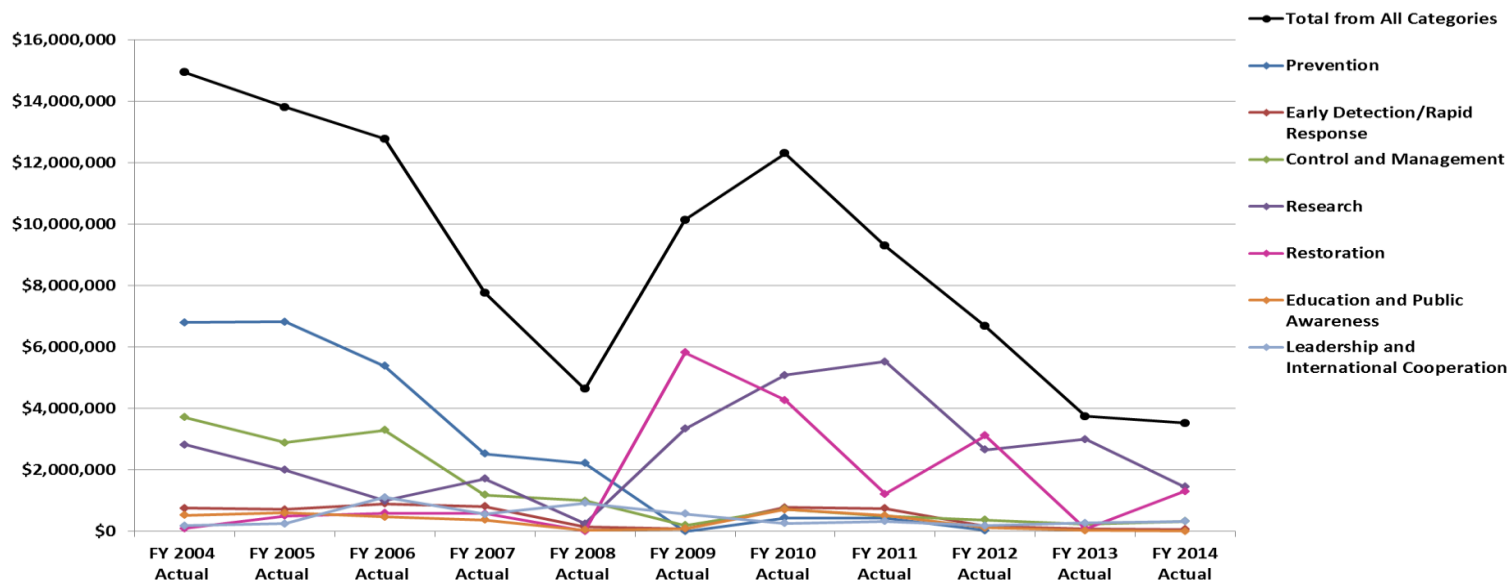


# NOAA Budget Crosscut

## NOAA INVASIVE SPECIES CROSS-CUT BUDGET - Last Updated April 10, 2015

**TOTAL spending:** INCLUDES American Recovery and Reinvestment Act (ARRA)  
and Great Lakes Restoration Initiative (GLRI) funds

	FY 2010 Actual	FY 2011 Actual	FY 2012 Actual	FY 2013 Actual	FY 2014 Actual	FY 2015 Enacted*
Prevention	\$ 441,273	\$ 436,273	\$ 35,000	\$ 10,000	\$ 8,000	TBD
Early Detection/Rapid Response	\$ 788,033	\$ 753,781	\$ 167,812	\$ 93,990	\$ 70,515	\$ 32,300 +TBD
Control and Management	\$ 732,163	\$ 506,583	\$ 375,102	\$ 240,349	\$ 336,827	\$ 26,000 +TBD
Research	\$ 5,081,991	\$ 5,523,605	\$ 2,661,454	\$ 2,998,377	\$ 1,450,301	\$ 1,340,200 +TBD
Restoration	\$ 4,279,093	\$ 1,224,564	\$ 3,126,228	\$ 95,751	\$ 1,314,934	\$ 1,539,826 +TBD
Education and Public Awareness	\$ 714,688	\$ 519,035	\$ 127,853	\$ 34,404	\$ 12,593	TBD
Leadership and International Cooperation	\$ 264,000	\$ 331,626	\$ 187,000	\$ 274,000	\$ 335,000	\$ 335,000 +TBD
<b>Total from All Categories</b>	<b>\$ 12,301,241</b>	<b>\$ 9,295,467</b>	<b>\$ 6,680,449</b>	<b>\$ 3,746,871</b>	<b>\$ 3,528,170</b>	<b>\$ 3,273,326 +TBD</b>





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# Questions ?



**ANSTF website:** <http://www.anstaskforce.gov/>  
**NISC website:** <http://www.invasivespecies.gov/>